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Abstract

Process for producing silicon oxide containing thin films on a growth substrate by the ALCVD method. In the process, a vaporisable silicon compound is bonded to the growth substrate, and the bonded silicon compound is converted to silicon dioxide. The invention comprises using a silicon compound which contains at least one organic ligand and the bonded silicon compound is converted to silicon dioxide by contacting it with a vaporised, reactive oxygen source, in particular with ozone. The present invention provides a controlled process for growing controlling thin films containing SiO₂ with sufficiently short reaction times.